



PATIENT

Sox Schwenk

SPECIES

Feline

BREED

DLH

SEX

Neutered Male

AGE

10 Years

WEIGHT

13 Pounds

INTERPRETED BY

Beth Johnson, DVM
DACVIM

IMAGING PERFORMED BY

Dr. Meghan Myers

HOSPITAL NAME

Hershire Animal
Hospital

REFERRING VET

Dr. Erika Gallisdorfer

INVOICE

44168

DATE

1/12/23

PRESENTING CLINICAL SIGNS

Ultrasound request due to 2 month history of diarrhea (ranging from liquid to soft with mild form) and associated weight loss (1lb total over last 2 months) despite good appetite, never any history of vomiting Nov 2022 first visit 15.5lbs, grade 1/6 murmur, GIT gas dilation no masses felt - fecal exam - neg ova and Giardia; Senior BW Cholesterol 72 (91-305), Alb3.8 (2.6-3.9), T4 1.9 (0.8-4.7) otherwise nsf- Started on metronidazole and forti-flora - Initially responded to first few days of metronidazole but stools remained soft serve and strong appetite - Repeat course of metronidazole, added in prednisolone and Gi Biome (at this time owner was unsure of ultrasound) - no change in stool or appetite mid Dec 2022 - wt 14.75lbs - no change per owner from first visit despite metronidazole, prednisolone and GI biome - Jan 2023 - weight 14.5lbs, continuation of B12 injections - Started new course of metronidazole, tylosin, fortiflora symbiotic, and weekly B12 injections - no change in stools or appetite after 2 weeks of treatment - more weight loss today.

Abnormal PE/Chem/CBC/UA Results: Repeat BW - nsf - Alb 4.4 (2.6-3.9), Chol 123 (91-305); GI Panel - spec fPL 39.7 (0-3.5) TLI 290.8 (12-82), Cobalamin <150 (275-1425), Folate>24 (8.9-19.9)

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder is moderately distended with anechoic contents. No masses, inflammatory changes, echogenic sediment or cystoliths are observed. The urinary bladder, trigone and visible pelvic urethra are normal in thickness with a smooth mucosal surface.

Kidneys are normal in size buty bilaterally irregular and diffusely echogenic with decreased corticomedullary distinction and poor visualization of internal architecture. There is no pyelectasia noted and no mineral is observed. The left kidney measures 3.8 cm. The right kidney measures 4.5 cm.

Adrenal Glands

The area of the right adrenal gland is examined without evident adrenal gland pathology.

The left adrenal gland is normal in size (0.33 cm), shape and contour. Corticomedullary structure is unremarkable. Visible surrounding vasculature appears normal.

Spleen

The spleen is subjectively normal in size with a normal smooth capsular contour. Parenchyma is appropriately finely textured and homogenous with normal echogenicity relative to surrounding tissue (hyperechoic to liver). No focal nodules or masses are observed. Splenic vasculature appears normal.

Liver

Liver is subjectively enlarged (swollen contour) without disruption of architecture. It has a normal homogenous echotexture. Parenchyma is diffusely hyperechoic characterized by less prominent than normal portal vein walls and increased echogenicity relative to the spleen and falciform fat. No focal lesions are observed. Visible vasculature and biliary tree appear normal without distension or congestion.

The gallbladder is non-distended in size. The wall is smooth without visible thickening. Luminal contents are primarily anechoic. There is no evidence of cystic or common bile duct dilation.

Gastrointestinal



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The stomach wall is normal in thickness (canine < 0.5 cm and feline < 0.4 cm) and layering. The lumen of the stomach is empty with no evidence of obstruction, foreign material or infiltrative disease. Pyloric outflow tract appears patent.

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The visible small intestine demonstrates areas of thick muscularis layer relative to mucosa (disruption of the normal 1:3 muscularis:mucosa ratio). Small intestinal submucosa is slightly irregular, thick and hyperechoic, without evident loss of layering appreciated. The lumen is empty with no evidence of obstruction or foreign material.

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The visible colon is normal in wall thickness (< 0.2 cm) and layering. Contents are consistent with normal formed feces and gas.

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Pancreas

The observed pancreas is markedly prominent (enlarged) in size, hypoechoic to surrounding tissue, and irregular in shape, with a swollen, markedly undulating contour. Mild pancreatic duct dilation is noted. Enhanced hyperechoic ill-defined surrounding fat is noted.

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Free Abdomen

There is no evidence of free peritoneal effusion noted in these images.

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Cranial abdominal lymph nodes are enlarged with swollen irregular capsular contour and loss of normal length to width ratio (rounded in shape). Nodes are hypoechoic with loss of normal parenchymal detail.

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ULTRASONOGRAPHIC FINDINGS

- **Acute pancreatitis** – likely acute on low-grade smoldering chronic pancreatitis. Given the marked irregular, almost nodular appearance to the pancreas, infiltrative neoplastic disease cannot be ruled out without tissue sampling.
- **Aggressive cranial abdominal lymph nodes** – most consistent with infiltrative round cell or metastatic neoplasia. A benign aggressive inflammatory response cannot be ruled out without tissue sampling +/- culture.
- **Inflammatory bowel disease (IBD) pattern** – Thick muscularis has been reported with infiltrative bowel disease including both benign inflammatory disease as well as infiltrative neoplasia such as lymphoma.
- **Hyperechoic hepatomegaly** – This appearance is most consistent with benign hepatic lipidosis. Infiltrative disease such as amyloidosis or round cell neoplasia, such as mast cell tumor or less likely, lymphoma, is also possible.
- **Chronic Kidney Disease** – This appearance of the kidneys is consistent with chronic kidney disease such as chronic glomerular or interstitial nephritis, chronic pyelonephritis, etc.

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INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

This patient's reported gastrointestinal malabsorption panel results combined with the appearance of the bowel is suggestive of a malabsorptive condition likely contributing to the weight loss. Whether the underlying cause is a benign inflammatory process or infiltrative neoplasia is unknown without tissue sampling.

Given the marked change in the malabsorption panel, a secondary underlying infectious process contributing to a low cobalamin and high folate could be considered. Therefore, a fecal enteropathogen



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PCR panel to Texas A&M GI Laboratory could be considered for further evaluation of possible infectious disease. **Please contact the lab in Texas for recommendations regarding discontinuing antibiotics prior to obtaining stool for submission for the most accurate results.

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Given the appearance of the pancreas and the surrounding lymphadenopathy, a fine needle aspirate of the pancreas +/- lymph nodes (if they can safely be reached and if patient's coagulation status is appropriate) is recommended to help identify inflammatory cell type and rule out infiltrative neoplasia such as lymphoma.

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Pending the above results, ultimately, biopsies of the gastrointestinal tract may be the only way to definitively diagnose and therefore additionally manage this patient's underlying cause for diarrhea and weight loss.

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In the meantime, a transition to a different probiotic (either Visbiome or Provia) may be helpful.

AGE

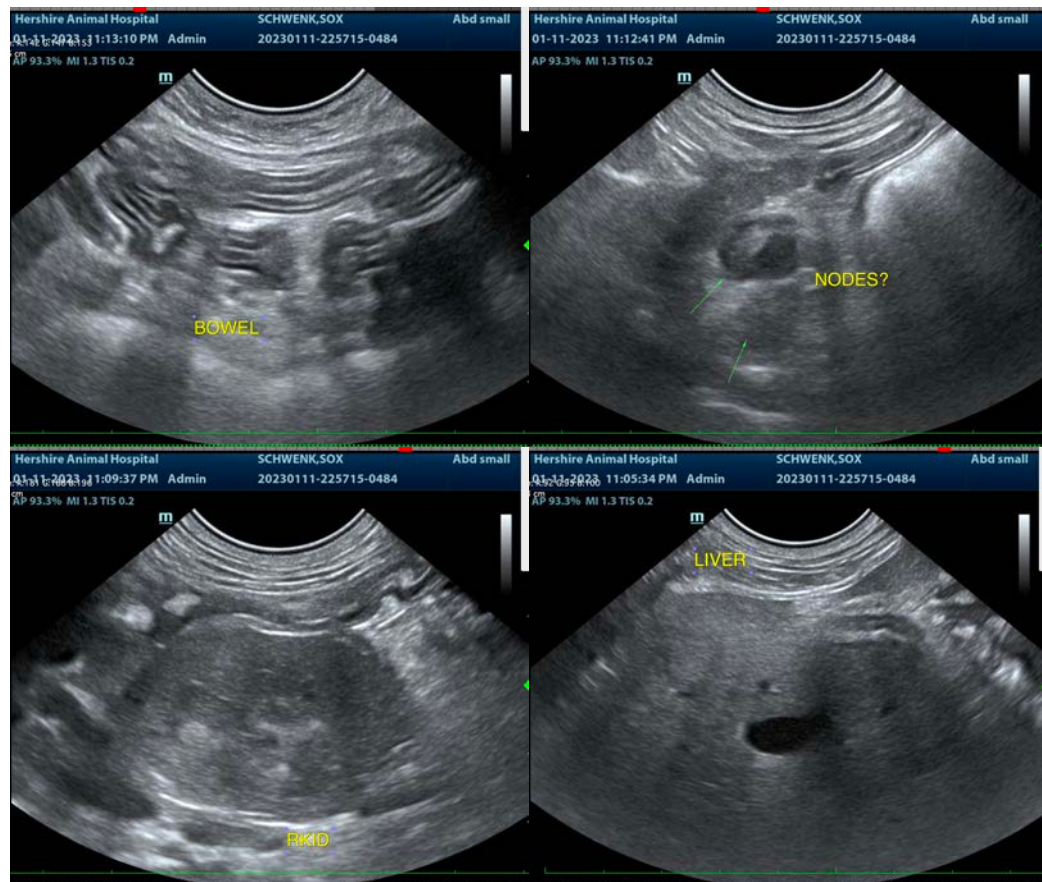
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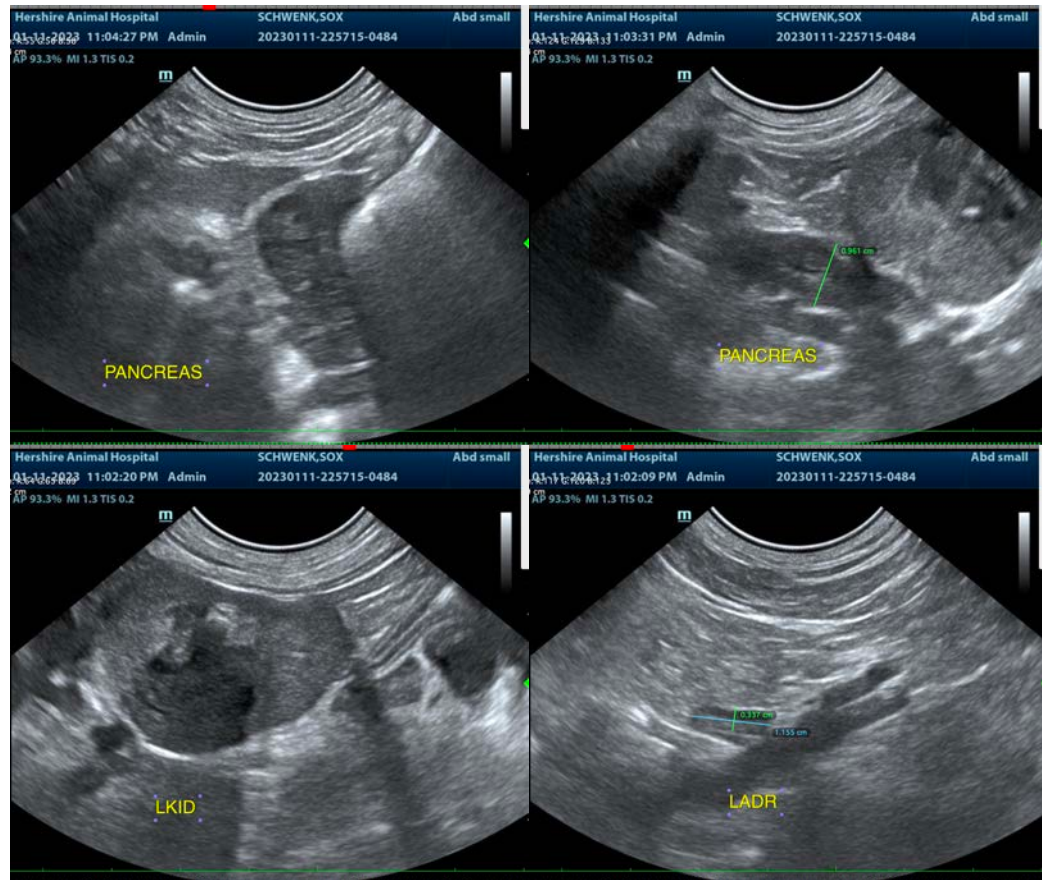
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

Thank you for this referral. If the clinical or image interpretation does not parallel your findings or if I can be of any further assistance please contact me.

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